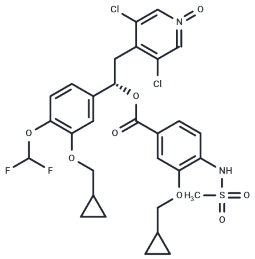
Data Sheet (Cat.No.T38625)

TargetMol

Tanimilast

Chemical Properties



CAS No. : 1239278-59-1

Formula: C30H30Cl2F2N2O8S

Molecular Weight: 687.54

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Tanimilast (CHF-6001) is a novel, potent, and selective phosphodiesterase 4 inhibitor with an IC50 value of 0.026 ± 0.006 nM. It exhibits potent anti-inflammatory activity and is indicated for topical use in the lungs. Tanimilast was studied for its effects on obstructive lung disease.
Targets(IC50)	NF-κB,CCR,CXCR,Interleukin,PDE,TNF
In vitro	Methacholine-induced protein expression of smooth muscle-myosin was fully inhibited by CHF-6001 (0.3-100 nM; Guinea pig precision-cut lung slices). CHF-6001 did not affect airway closure and had limited effects on TGF-β1-induced remodeling, but rather, it inhibited methacholine-induced TGF-β release.[2]

Solubility Information

Solubility	DMSO: 50 mg/mL (72.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4545 mL	7.2723 mL	14.5446 mL
5 mM	0.2909 mL	1.4545 mL	2.9089 mL
10 mM	0.1454 mL	0.7272 mL	1.4545 mL
50 mM	0.0291 mL	0.1454 mL	0.2909 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Moretto N, et al. CHF6001 I: a novel highly potent and selective phosphodiesterase 4 inhibitor with robust anti-inflammatory activity and suitable for topical pulmonary administration. J Pharmacol Exp Ther. 2015 Mar;352(3): 559-67.
Kistemaker LEM, et al. The PDE4 inhibitor CHF-6001 and LAMAs inhibit bronchoconstriction-induced remodeling in lung slices. Am J Physiol Lung Cell Mol Physiol. 2017;313(3):L507-L515.
Sulaiman I, et al. Molecularly targeted therapies for asthma: Current development, challenges and potential clinical translation. Pulm Pharmacol Ther. 2016;40:52-68.
Matera MG, et al. PDE inhibitors currently in early clinical trials for the treatment of asthma. Expert Opin Investig Drugs. 2014;23(9):1267-1275.